



PATENT
ATTORNEY DOCKET NO.: DIVER1140-3

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Jay M. Short Art Unit: 1652
Application No.: 09/663,620 Examiner: Nashaat T. Nashed
Filed: September 15, 2000
Title: COMBINATORIAL SCREENING OF MIXED POPULATIONS OF ORGANISMS

BOX NON-FEE AMENDMENT
Commissioner for Patents
Washington, D.C. 20231

RESPONSE TO RESTRICTION REQUIREMENT

Sir:

In response to the Requirement for Restriction mailed December 12, 2001, Applicant elects, with traverse, Group I, consisting of Claims 1-13, 17-21, 27-29 and 58, drawn to a method for identifying desired nucleic acid, classified in class 435, subclass 4.

In addition, in response to the requirement to elect a single disclosed species of the claimed invention, Applicant elects, with traverse, the enzyme species "glycosidase" and the mutagenesis technique species "shuffling".

The Restriction Requirement

The above-identified patent application has been examined for restriction purposes only.

The Examiner has set forth the following groups:

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CERTIFICATION UNDER 37 CFR §1.8	
I hereby certify that the documents referred to as enclosed herein are being deposited with the United States Postal Service as first class mail on this date, February 11, 2002 , in an envelope addressed to: Commissioner for Patents, Washington, D.C. 20231.	
Cecilia Tobin (Name of Person Mailing Paper)	
<i>Cecilia Tobin</i> (Signature)	February 11, 2002 (Date)

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GROUP NUMBER	CLAIMS	SUBJECT MATTER
I	1-13, 17-21, 27-29 and 58	Methods for identifying desired nucleic acid, class 435, subclass 4
II	1, 14, and 16-49	Methods for identifying a lipase
III	1-13 and 17-50	Methods for identifying a desired gene cluster, class 435, subclass 4
IV	1, 17-49, and 51	Methods for identifying a desired polypeptide in a metabolic pathway, class 435, subclass 4
V	52, 54, and 56	Methods for identifying activity from a pooled nucleic acid, class 435, subclass 4
VI	53, 55 and 57	Methods for identifying a desired mutant activity, class 435, subclass 4
VII	59-62	Methods for identifying desired mutant activity, class 435, subclass 4

In the Office Action mailed December 12, 2001, the Examiner restricted the claims to seven allegedly distinct and independent inventions. Applicant respectfully requests rejoinder of Groups I through VII. In support of such restriction of the claims, the Office Action states that the invention of Groups I-VII are unrelated because the different inventions are independent methods having different steps and in many cases different products and have a different status in the art as shown by the different classification (Office Action, page 2).

However, the methods of Groups I-VII do not have different classifications signifying a separate status in the art because Groups I and III-VII are all classified in the same class and subclass (i.e., class 435, subclass 4). The classification of Group II, it appears, was inadvertently omitted by the Examiner. Thus it would appear that the Examiner would necessarily need to search the same group of art for the method of identifying a desired nucleic acid of Group I as for the methods of Groups III-VII, if not of Group II as well. Accordingly, Applicant

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respectfully requests rejoinder of Groups I-VII. However, in order to be fully responsive, Applicant elects the invention of Group I, claims 1-48 and 51, with traverse.

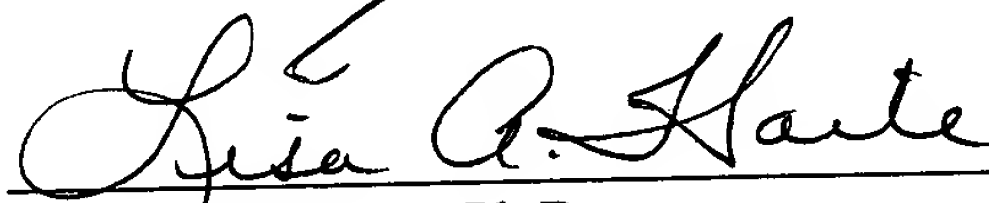
In addition, the Examiner has restricted the claims to a single species selected from protein, lipase, esterase, protease, glycosidase, glycosyl transferase, phosphatase, kinase monooxygenase, dioxygenase, haloperoxidase, lignin peroxidase, diarylpropane peroxidase, epoxide hydrolase, nitrile hydratase, nitrilase, transaminase, amidase, and acylase of claim 16, and a single mutagenesis technique species selected from error-prone PCR, shuffling, oligonucleotide directed mutagenesis, assembly PCR, sexual PCR mutagenesis, *in vivo* mutagenesis, cassette mutagenesis, recursive ensemble mutagenesis, exponential ensemble mutagenesis, site specific mutagenesis, ligation reassembly, and GSSM of claim 30. Applicant respectfully requests rejoinder of all of the named species. Applicants respectfully submit that the Examiner would have to search substantially the same prior art for all species. In addition, division of the claims as proposed by the Examiner imposes an extreme burden upon the Applicants, requiring the filing of a proliferation of patent applications at great expense to the Applicants. However to be responsive to the request for species election, Applicants elect, with traverse, the enzyme species "glycosidase" and the mutagenesis technique species "shuffling."

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No fee is deemed necessary in connection with the filing of this paper. However, if any fee is required, the Commissioner is hereby authorized to charge the amount of this fee, or credit any overpayments, to Deposit Account No. 50-1355. A copy of this Transmittal Sheet is enclosed.

Respectfully submitted,

Dated: February 11, 2002



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